The Discovery of Gravity

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Introduction

- This presentation will tell you about gravity, how it works, who found it, and many other different and interesting questions.
- I wish you will like my presentation, enjoy watching!

Do we really know what gravity is?

- We do not know what gravity "is" in any fundamental way - we only know how it behaves.

How does gravity behave?

- Gravity is not just the attraction between objects and the Earth. It is an attraction that exists between all objects, everywhere in the universe.
- Isaac Newton discovered that a force is required to change the speed or direction of movement of an object.

How does it work?

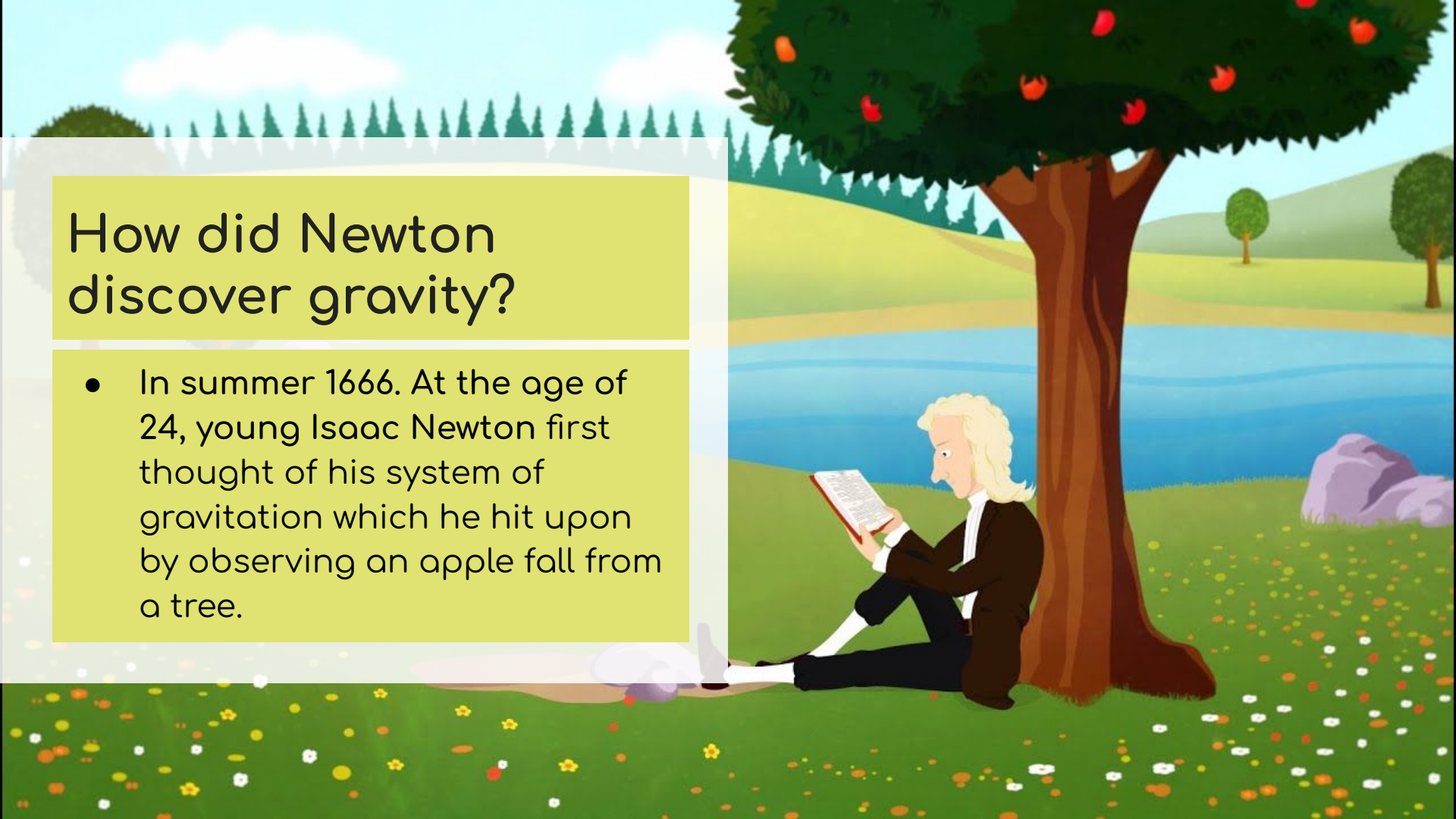
- Earth's gravity comes from all its mass.
- All its mass makes a combined gravitational pull on all the mass in your body.

Who found gravity?

- Far more than just discovering the laws of gravity, Sir Isaac Newton was also responsible for working out many of the principles of visible light and the laws of motion, and contributing to calculus.

How did Newton discover gravity?

- In summer 1666. At the age of 24, young Isaac Newton first thought of his system of gravitation which he hit upon by observing an apple fall from a tree.

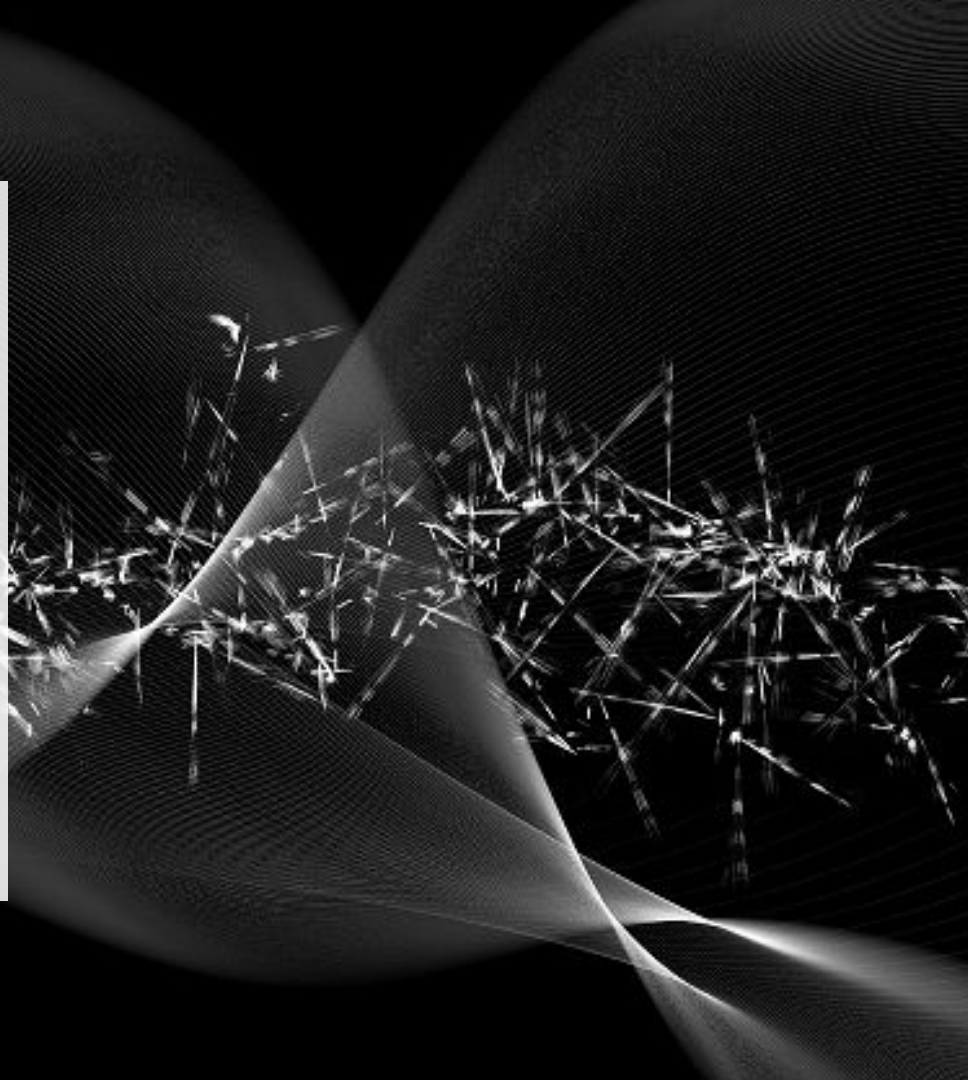


What is unique about gravity?

- Gravity may be the weakest of the four fundamental forces, but its range of action is unlimited. When objects move away from each other, the force of gravity decreases, but it still affects them because, theoretically, its effect is infinite.

How is gravity created?

- In quantum mechanics, it is thought that gravity is caused by exchanging particles called “gravitons”
- Think of it like the way you would play catch with your friends.



Positive Perspective

- In 1687, people agreed on Newton's theory, a description of gravity that was considered a scientific law until Einstein's general theory of relativity was published more than two centuries later.

Negative Perspective

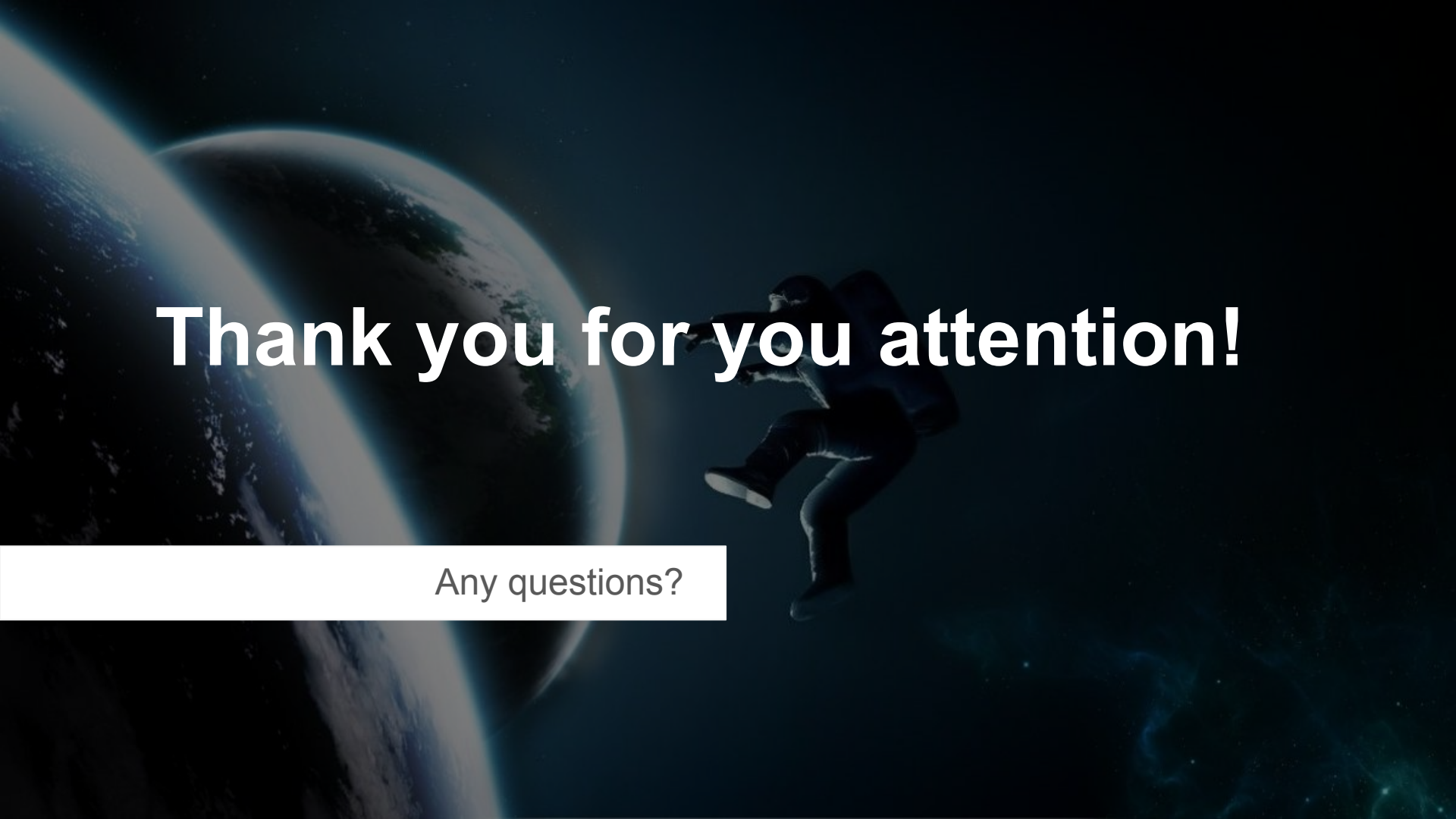
- Before people agreed with Newton's theory in 1687, they did not accept it, because it did not explain everything.
- For example, it could not explain black holes.
- Robert Hooke and Gottfried Leibniz

How did the discovery of gravity change the world?

- Gravity is what holds the planets in orbit around the sun and what keeps the moon in orbit around Earth. The gravitational pull of the moon pulls the seas towards it, causing the ocean tides. Gravity creates stars and planets by pulling together the material from which they are made.

Conclusion

In conclusion, gravity plays a very important role in our lives and we are still learning a lot of interesting things related to gravity.


Thank you for you attention!
Any questions?

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